IN THE CLAIMS

1. (Currently Amended) A method for measuring platelet function, ~~by the counting of platelets before and after exogenous platelet activation~~ comprising:

(a) selecting first and second samples comprising platelets in a liquid medium from a physiological source of said platelets wherein each of said first and second samples contains approximately the same number of platelets;

(b) ~~obtaining a baseline count of~~ counting the platelets contained in said first sample, to obtain a baseline count;

(c) mixing an amount of [[an]] at least one platelet activation agonist with said second sample for a period of time effective to ~~maximally activate the~~ activate a maximum number of activatable platelets in said second sample;

(d) ~~obtaining a count of the~~ counting unactivated platelets remaining in said second sample after activation, ~~of the active platelets;~~ to obtain a second count; and

(e) utilizing the difference [[in]] between the baseline count ~~of platelets in step (b) from the~~ and the second count ~~in step (d)~~ as a measure of the activity of the platelets in the ~~original sample~~ physiological source.

2. (Currently Amended) The method of Claim 1, wherein the ~~count of~~ platelets ~~is obtained~~ are counted in an electrical impedance cell counter.

3. (Currently Amended) The method of ~~Claim 2~~ Claim 1, wherein the ~~counting of the platelets in the first sample is conducted~~ baseline count is carried out in the presence of EDTA as a blood preservative.

4. (Currently Amended) The method of ~~Claim 3~~ Claim 1, wherein the second [[tube]] sample is essentially devoid of any agent which interferes with platelet function.

5. (Currently Amended) The method of ~~Claim 4~~ Claim 1, wherein the platelet activation [[agent]] agonist is adenosine 5' di-phosphate, adenosine tri-phosphate, serotonin, thromboxane, collagen, epinephrine, thrombin, ristocetin or arachidonic acid.

6. (Currently Amended) The method of ~~Claim 5~~ Claim 1, wherein the platelet activation agonist is adenosine 5' di-phosphate.

7. (Currently Amended) The method of Claim 1, wherein the platelets are human platelets.

8. (Currently Amended) The method of ~~Claim 5~~ Claim 1, wherein the second [[tube]] sample contains a blood preservative which does not interfere with platelet function to any significant degree.

9-20. (Canceled)

21. (New) A kit for performing the method of Claim 1, said kit comprising first and second tubes for receiving said first and second samples, respectively;

wherein, prior to receiving the first sample, the first tube is essentially devoid of any agent that would produce exogenous platelet activation and aggregation in the presence of platelets, and is essentially devoid of any agent that would suppress exogenous platelet activation or aggregation in the presence of platelets;

and wherein, prior to receiving the second sample, the second tube comprises the platelet activation agonist.

22. (New) The kit of Claim 21, wherein the platelet activation agonist is adenosine 5' di-phosphate, adenosine tri-phosphate, serotonin, thromboxane, collagen, epinephrine, thrombin, ristocetin or arachidonic acid.

23. (New) The kit of Claim 21, wherein the agonist is adenosine 5' di-phosphate.

24. (New) The method of Claim 1, wherein the platelets are animal platelets.

25. (New) The method of Claim 1, wherein the physiological source comprises diluted whole blood or platelet-containing plasma.

26. (New) The method of Claim 1, wherein the first sample contains a blood preservative which does not interfere with platelet function to any significant degree.

27. (New) The method of Claim 1, further comprising at least one selected from the group consisting of diagnosin platelet disfunction, evaluating the efficacy of antifibrinolytic protectorte, evaluating the efficacy of platelet protectorte, evaluating the efficacy of aprotinin, evaluating the efficacy of transexamic acid, evaluating the efficacy of DDAVP, evaluating the efficacy of amino caproic acid, evaluating the efficacy of aspirin, measuring IIb-IIIa anti-platelet compound, diagnosing congenital or acquired platelet disorder, characterizing congenital or acquired platelet disorder, diagnosing storage pool disease, differentially diagnosing post preliminary by-pass surgery bleeding, and a combination thereof.

28. (New) The kit of Claim 21, wherein said second tube further comprises one or more selected from a group consisting of glass bead, glass bead agonist, platelet-attracting particle, and a combination thereof.